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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/879,322	06/20/97	HODGSON A	14136

LM31/0822

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EXAMINER	
DASTOURI, M	
ART UNIT	**PAPER NUMBER**
2723	10

DATE MAILED: 08/22/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/879,322	Hodgson et al
Examiner	**Group Art Unit**
Mehrdad Dastouri	2723

☒ Responsive to communication(s) filed on *May 30, 2000* .

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *Three* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-10 and 12-20* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-10 and 12-20* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed, May 30, 2000, has been entered and made of record.

Affidavit or Declaration Under 37 CFR 1.131: Ineffective

2. The declaration filed on May 30, 2000 under 37 CFR 1.131 has been considered but is ineffective to overcome the Queisser et al reference.

The evidence submitted is insufficient to establish a reduction to practice of the invention in this country or a NAFTA or WTO member country prior to the effective date of the Queisser et al reference. The declaration is ineffective to establish a reduction to practice of the invention in view of Exhibit "F" corresponding to the claimed invention which is not dated prior to the filing date of Queisser et al reference as indicated in Paragraph 4 of the declaration.

3. Applicants' arguments with regards to Claims 1-10 and 12 have been fully considered, but they are not persuasive.

Regarding Claim 1, Applicants argue in essence that the prior art of record (Queisser et al) do not disclose an apparatus or process for measurement of fruit particles in a matrix. The Examiner disagrees and indicates that prior art of record clearly determines characteristics of samples of food products as disclosed in Column 2, Lines 25 and 26 (invention encompasses food products and is not limited to potatoes only). The sample tray utilized in the invention contains a matrix or a two-dimensional array of food products. Claim language does not specifically defines a particular type of measurement, neither identifies fruit particles in a syrup. Furthermore, claim

language does not indicate "similarity in consistency between the fruit pieces", and "differently sized and shaped fruit pieces distribution in a matrix (which is interpreted as a two dimensional array) in a non-ordered manner". Prior art of record undoubtedly reads the extremely broad language of the claimed invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Guens*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further limitation of transparent tray is disclosed by Bolle et al (U.S. 5,546,475) as indicated in 103 (a) rejection of Claim 7. There is no requirement for disclosure of further limitation of Claim 7 by primary prior art of record.

Concerning the newly added Claims 13-20, the Examiner asserts that the newly added claim limitations essentially refer to the relative position of camera, light source and sample tray which are all subject to the designer choice. These features simply can not be a basis for patentability. However, for further emphasis, the Examiner has cited relevant prior arts teaching these limitation. This action is FINAL.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1, 3 and 12 are rejected under 35 US.C. 102(e) as being anticipated by Queisser et al (U.S. 5,818,953).

Regarding Claim 1, Queisser et al disclose an apparatus for measurement of the fruit particles in a matrix comprising:

a substantially opaque cabinet (Figure 1; Column 3, Lines 63-67, Column 4, Lines 1-3); a camera in the upper portion of said cabinet (Figure 1; Column 4, Lines 14-16); a light source in said cabinet (Figure 1; Column 4, Lines 21-22); a sample tray (Figure 1; Column 5, Lines 34-41. Sample tray contains a matrix (or a two-dimensional array) of food products.); and a computer with image analyzing software (Figure 2; Column 4, Lines 27-67, Column 5, Lines 1-11).

Regarding Claim 3, Queisser et al further disclose an apparatus for measurement of the fruit particles in a matrix wherein the light source comprises an incident light source within the cabinet ((Figure 1; Column 4, Lines 21-22).

With regards to Claim 12, arguments analogous to those presented for Claim 1 are applicable to Claim 12. Queisser et al further disclose illuminating the food particles so that an image may be obtained in which food particles are distinguishable from the background (Column 5, Lines 50-65); capturing a computer-readable image of at least a portion of said illuminating fruit particles (Figure 3, Step 70); and using a computer and an image analyzing software program to analyze said image and obtain information concerning said fruit particles (Figures 2 and 3; Column 13, Lines 4-60, Column 14, Lines 1-8).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable by Queisser et al (U.S. 5,818,953).

Regarding Claim 4, Queisser et al do not specifically disclose the apparatus of Claim 1 wherein the light source comprises switches for adjusting the intensity of the light. Light sources are inherently incorporated with switches for turning the lights on and off. Alternatively, utilizing switches for adjusting the intensity of a light in a predetermined range is extremely well known in the art (Official Notice.). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an apparatus for measurement of the fruit particles in a matrix wherein the light source comprises switches for adjusting the intensity of the light because it will provide the capability of obtaining different images of samples under various illumination conditions for enhancing image quality.

Regarding Claim 5, Queisser et al disclose the apparatus of Claim 1 wherein the light source comprises multiple light-producing sources (Figure 1; Column 5, Lines 52-57). Queisser et al do not explicitly disclose the apparatus of Claim 1 comprising independently-adjustable light-

producing sources. Light sources are inherently incorporated with switches for turning the lights on and off. Alternatively, utilizing switches for adjusting the intensity of lights in a predetermined range is extremely well known in the art (Official Notice.). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an apparatus for measurement of the fruit particles in a matrix wherein the light source comprises switches for adjusting the intensity of the light because it will provide the capability of obtaining different images of samples under various illumination conditions for enhancing image quality.

Regarding Claim 6, Queisser et al do not disclose the apparatus of Claim 1 wherein the inside of the cabinet is non-reflecting. Characteristics of the inside surface of a cabinet is the decision based upon designer's preference. Appropriate painting of the inside of a cabinet will result in a non-reflecting surface routinely practiced in the art (Official Notice). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a cabinet with non-reflecting inside surface because it will minimize light scattering inside the cabinet and will prevent degrading of the image quality due to light scattering.

8. Claims 2, 7-10, 13, 14, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable by Queisser et al (U.S. 5,818,953) in view of Bolle et al (U.S. 5,546,475).

Regarding Claim 2, Queisser et al do not disclose the apparatus of Claim 1 wherein said light source comprises a light box in the lower portion of said cabinet. Bolle et al disclose a produce recognition system wherein the light source comprises a light box in the lower portion of the cabinet (Figure 4; Column 9, Lines 29-50). It would have been obvious to a person of

ordinary skill in the art at the time the invention was made to provide a light box in the lower portion of the cabinet to enclose the lighting fixtures because it will protect the lights against undesirable environmental conditions and mechanical damages.

Regarding Claim 7, Queisser et al do not disclose the apparatus of Claim 1 wherein the sample tray comprises a light-transmitting bottom. Bolle et al disclose a sample tray comprising light transmitting bottom (FIG. 4, Transparent support 405; Column 9, Lines 44-46). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a light transmitting (transparent) tray for supporting fruit particles in a matrix because it will provide adequate illumination for obtaining the image of the fruit particles.

Regarding Claim 8, neither Queisser et al nor Bolle et al disclose the apparatus of Claim 2 wherein said apparatus further comprises a light box cover. Configuration of the internal parts of the cabinets is based upon the discretion of the designer. The cover for an internal component such as a light box is considered one of the basic elements in construction of the cabinets (Official Notice). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a cabinet with cover for the light box because it will enclose components with distinct functions in separate segments.

Regarding Claim 9, Queisser et al further disclose an apparatus for measurement of the fruit particles in a matrix wherein the apparatus further comprises a sample tray guide (Figure 1; Column 4, Lines 10-14).

With regards to Claim 10, arguments analogous to those presented for Claims 1, 4, 6 and 7 are applicable to Claim 10.

Regarding Claim 13, Queisser et al do not disclose the process of Claim 12 wherein said illuminating of the fruit particles in a matrix is from below the sample tray, and said illuminating is therethrough in obtaining said image. Bolle et al disclose a produce recognition system wherein illuminating the particles in a matrix is from below the sample tray, and said illuminating is therethrough in obtaining said image (Figure 4, light source 110, transparent support 405; Column 9, Lines 39-51). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Queisser et al invention in accordance with Bolle et al teachings to illuminate the fruit particles in a matrix from below the sample tray, and the illuminating is therethrough in obtaining said image because it is a conventional method of illuminating materials on a translucent support routinely implemented in the art.

Regarding Claim 14, Bolle et al further disclose a produce recognition system wherein the illuminating is from below only (Figure 4, Light 110; Column 9, Lines 29-37. As depicted in Figure 4, illuminating is from below only. The transparent support 405 is not illuminated both from above and from below.).

With regards to Claim 17, arguments analogous to those presented for Claim 13 are applicable to Claim 17.

With regards to Claim 18, arguments analogous to those presented for Claim 14 are applicable to Claim 18.

9. Claims 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable by Queisser et al (U.S. 5,818,953) in view of Sistler et al (U.S. 4,975,863).

Regarding Claim 15, Queisser et al do not disclose the process of Claim 12 wherein the placing occurs spatially between the illuminating location and the capturing location. Sistler et al disclose a system and process for analysis of particles wherein placing a sample tray occurs spatially between the illuminating location and the capturing location (Figure 5. Transparent plate 23 is located between light source 28 and camera 15). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Queisser et al invention in accordance with Sistler et al teachings to place a sample tray spatially between the illuminating location and the capturing location because it is one of the standard methods of imaging routinely implemented in the art.

With regards to Claim 19, arguments analogous to those presented for Claim 15 are applicable to Claim 19.

10. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable by Queisser et al (U.S. 5,818,953) further in view of Sistler et al (U.S. 4,975,863) and Bolle et al (U.S. 5,546,475).

Regarding Claim 16, neither Queisser et al nor Sistler et al disclose the process of Claim 15 wherein the illuminating has no source which is between the sample tray and the capturing location. Bolle et al disclose a produce recognition system wherein the illuminating has no source which is between the sample tray and the capturing device (Figure 4. As depicted in Figure 4,

there is no illuminating source between Camera 120 and Tray 403.). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Queisser et al and Sistler et al combination in accordance with Bolle et al teachings to consider no illuminating source which is between the sample tray and the capturing device because it will simplify illumination system.

With regards to Claim 20, arguments analogous to those presented for Claim 16 are applicable to Claim 20.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (703) 305-2438. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au, can be reached at (703)308-6604.

Any response to this action should be mailed to:

Commissioner for Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, or (703) 308-9052 (for ***formal*** communications; please mark **"EXPEDITED PROCEDURE")**

or:

(703) 306-5406 (for ***informal*** or ***draft*** communications, please label "PROPOSED" or "DRAFT")

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703)305-3900.

MD
Mehrdad Dastouri
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August 17, 2000

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